

Appl. Serial No. 09/923,535
Amendment dated April 13, 2004
Reply to Examiner's Requirement for
Election of March 16, 2004

Listing of Claims:

1. (original) A method for producing Permian super fuel comprising:
 - (a) introducing a hydrocarbon into a reactor vessel;
 - (b) introducing an acid into the reactor vessel;
 - (c) introducing an oxide into the reactor vessel;
 - (d) introducing a metal hydride compound into the reactor vessel; said metal hydride compound prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride;
 - (e) circulating the mixture in the reactor vessel;
 - (f) recovering Permian super fuel.
2. (original) The method according to claim 1 wherein the hydrocarbon is selected from the group consisting of gasoline, diesel, fuel, fuel oil, kerosene, and jet fuel.
3. (original) The method according to claim 1 wherein the metal hydride compound is $\text{Na}_{8.2}\text{Si}_{4.4}\text{H}_{9.7}\text{O}_{17.6}$.
4. (original) The method according to claim 1 wherein the acid is selected from the group consisting of hydrochloric acid, hydrobromic acid, and mixtures thereof.

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5. (original) The method according to claim 1 wherein the metal oxide is selected from the group consisting of chromic oxide, nickel oxide, aluminum oxide, magnesium oxide, manganese oxide, and mixtures thereof.

6. (original) The method according to claim 1 wherein the reaction is conducted at temperatures ranging from about 0 to about 200°F.

7. (original) The method according to claim 1 wherein the reaction is conducted at pressures ranging from about ambient to about 100 psi.

8. (original) The method according to claim 1 wherein the hydrocarbon is present in amounts ranging from about 85 to about 96% by weight, the acid is present in amounts ranging from about 1 to about 5% by weight, the metal oxide is present in amounts ranging from about 0.1 to about 1% by weight, and the metal hydride compound is present in amounts ranging from about 1 to about 5% by weight.

Claims 9-26 (withdrawn)